What Is Entire Operations?

This section covers the following topics:

- Introduction
- More than a Scheduler
- Summary of Benefits

Introduction

Entire Operations (NOP) is Software AG's software system for the automated control and scheduling of job networks. It provides all the functions required to define any type of background processing.

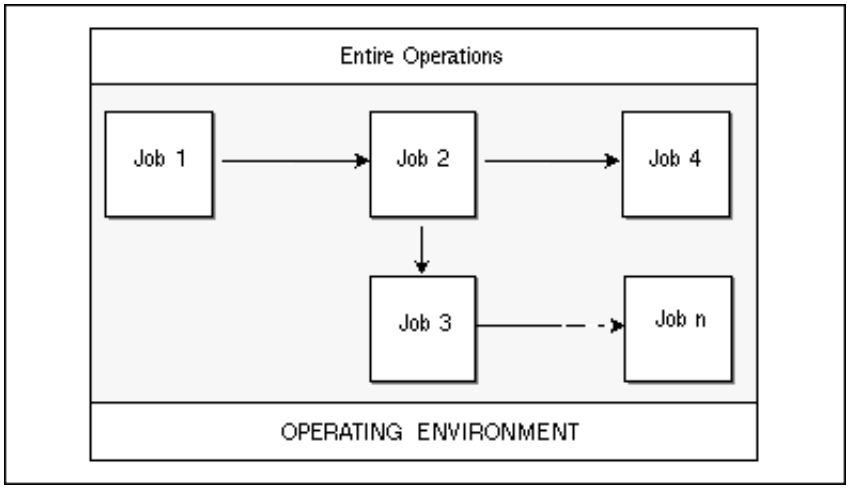
Entire Operations behaves according to the rules specified using a comfortable user interface that guides the user with all the task-oriented features of a highly modern system:

- object-oriented menus and direct commands for easy navigation
- pop-up windows for help texts and selection of items
- online tutorial
- quick execution of functions using PF keys
- Windows graphic interface (Entire Operations Viewer)

Entire Operations is available in English and German. Other languages are supported on request.

Entire Operations requires no modification to underlying operating system or to any of the subsystems installed at your site. Existing JCL can be put under Entire Operations control unchanged, allowing a smooth transition of your existing production control methods to automatic scheduling:

NOP Schedules and Controls Job Networks



Standard security packages such as RACF, ACF2, CA-TOP SECRET or SECOS are supported, allowing Entire Operations to honor existing security profiles.

For the execution of batch jobs and scripts, Entire Operations uses clearly defined interfaces to installed spooling systems or equivalent operating system utilities.

More than a Scheduler

Have you heard it all before? Does it sound like "just another scheduling system"? Well, read on: Entire Operations offers much more:

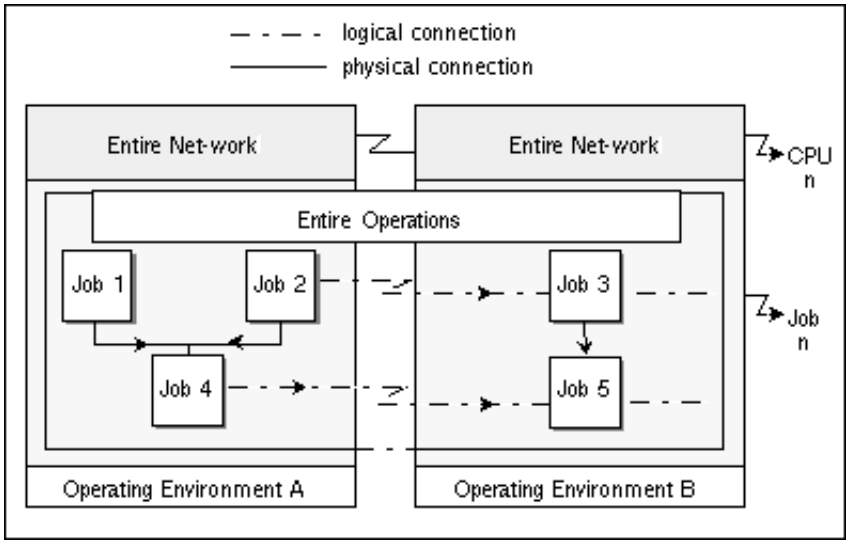
- Control Across Operating Systems
- NOP in a Multi-CPU Environment
- Intelligent Process Control
- Entire Operations Viewer
- Integration

Control Across Operating Systems

- **Mainframe environments:**
  Entire Operations can be installed on any of the mainframe platforms OS/390, VSE/ESA and BS2000/OSD running any TP/DC system such as Com-plete, CICS, TSO, IMS, UTM or TIAM.
- **UNIX:**
  Entire Operations controls production processes on UNIX systems (HP-UX, SINIX RM, AIX, for example), in conjunction with a mainframe environment. You can also manage your mainframe production from a central UNIX node or use Entire Operations to control a group of UNIX machines.

Background processes running in heterogeneous multi-CPU configurations can also be controlled and monitored by Entire Operations if the computers are interlinked with Software AG's communication service Entire Net-Work. In such a distributed environment, job networks can consist of processing steps that execute on different, even diverse computers:

NOP in a Multi-CPU Environment



While the Entire Operations Monitor program handles the distribution and decentralized execution of processing steps, this type of distributed processing can still be monitored and controlled centrally from a single point of management.

Entire Operations can even balance the system's workload by sharing out work dynamically. During processing, a decision can be taken based on the current load to determine on which computer the next processing step is to be executed.

Intelligent Process Control

Automating any type of operation requires thorough advance planning in order to map the processes in the language of the automation tool. Experience shows, however, that tomorrow’s reality often differs from today’s plan. One can, of course, anticipate a number of exceptional situations and plan accordingly; and it goes without saying that Entire Operations provides a wide range of features that enable it to react appropriately whenever such a situation arises.

However, the extent to which you can anticipate possible system situations and their consequences is limited; especially in large job network topologies, each new fork in processing adds to the system’s complexity, which is neither desirable nor necessarily helpful.

Entire Operations addresses this problem by allowing you to define variable processing steps. For example, executable job control can be built dynamically according to current system conditions such as disk space, content of system queues and availability of specific files. In other words, job control can "read" a current situation and adapt accordingly.

It is here that the functional depth of Natural, Software AG’s 4GL Development Environment is particularly helpful. For not only does the power of Natural allow you to map any conceivable decision criterion, but it can also put all relevant data at your disposal, thanks to its many interfaces to all commonly used data management and operating systems - even and especially in heterogeneous computer networks.

It is then no longer necessary to think of each and every possible problem situation and spend time and money in defining remedial action before processing starts. All you need to do is specify strategies (= programs) that recognize and rectify problems as they occur.

Entire Operations Viewer

In addition, you can visualize and analyze diagrams of your Entire Operations networks with its Windows component Entire Operations Viewer: simply download the job network data from your mainframe to your PC. Use Entire Connection or any file transfer program. With Entire Operations Viewer, you can now scroll your network diagrams, enlarge and print them.

Integration

Have you never been annoyed by the sheer number of applications or programs you need for your daily work? Depending on the software configuration at your site, you either have to go through tiresome logon and logoff procedures, or suspend and resume application sessions using a session manager (often to the detriment of system resources).

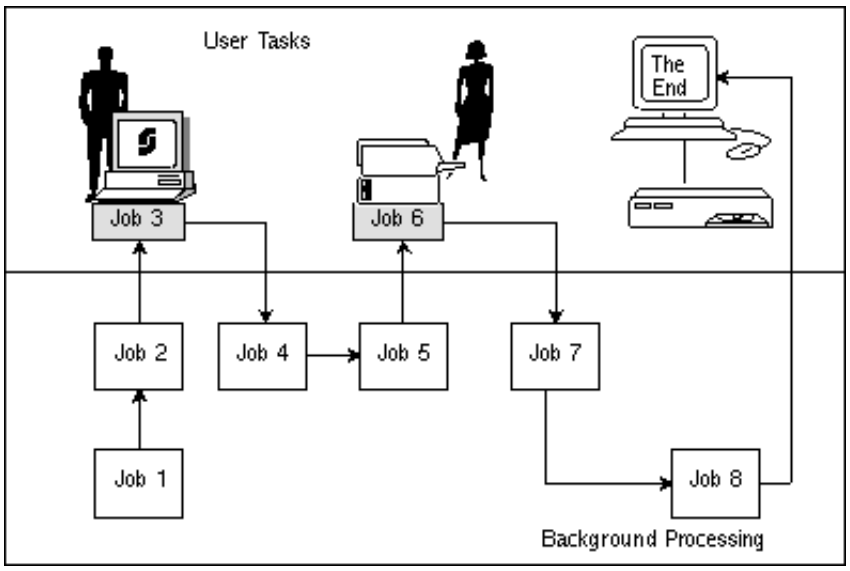
With Entire Operations, such session switching is a thing of the past, as Entire Operations provides the capability of integrating any other application(s) in its main menu. If any other products from the Entire Systems Management line are installed, Entire Operations recognizes them and includes them in its main menu automatically. These are:

- Entire Output Management
- Entire Event Management
- Entire System Server, and also
- Natural ISPF.

Aside from this technical integration capability, however, Entire Operations can also integrate people. It offers the ideal solution to those who, on the merits of their position, should be actively involved in the production process, but who have not been because it was technically impossible. Entire Operations achieves this by providing an integrated mailbox concept to link the "invisible" background processing of a scheduler with online user terminals.

At specified times during background processing, messages or prompts can be sent to such mailboxes. This has the twin effect of halting processing and informing all users with access to the mailbox of the situation. These users can react as the situation demands, whether it be executing a manual job (for example, feed the printer), or specifying a variable required for further processing:

Integrating People in Automated Operations



This mechanism enables selected employees to provide input relevant to their department, while background processing as a whole still remains under central control.

Summary of Benefits

The basic advantages of using Entire Operations to automate your data processing tasks can be summarized as follows:

- Transparent support of several computer nodes, even in heterogeneous environments comprised of OS/390, BS2000/OSD, VSE/ESA and UNIX platforms;
- Available in all host environments supported by Natural, e.g. Com-plete, CICS, TSO, IMS, CMS, UTM and TIAM;
- Ease of use through menus, windows technique, cursor-sensitive help and online help tutorial;
- Available in English and German;
- Existing JCL runs unchanged under Entire Operations;
- No modifications are necessary to the operating system;
- Use of dynamically-built JCL or scripts, thus integrating the latest information from the operating system or any available database at execution time;
- Integration of online users into batch network processing through the concept of mailboxes;
- Open interface to user applications: information from Entire Operations can be included in any business application, users can provide input data necessary for daily or future production runs.

